



**Calhoun: The NPS Institutional Archive**  
**DSpace Repository**

---

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

---

1954

## A study of pension plans for small business

McClelland, Robert Alexander

Purdue University

---

<http://hdl.handle.net/10945/14676>

---

*Downloaded from NPS Archive: Calhoun*



Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

**Dudley Knox Library / Naval Postgraduate School**  
**411 Dyer Road / 1 University Circle**  
**Monterey, California USA 93943**

<http://www.nps.edu/library>

Robert Alexander McClelland

-----  
A STUDY OF PENSION PLANS FOR  
SMALL BUSINESS.

Library  
University of Postgraduate School  
Munsey, California





A STUDY OF PENSION PLANS FOR SMALL BUSINESS

A Thesis

Submitted to the Faculty

of

Purdue University

by

Robert Alexander McClelland III

In Partial Fulfillment of the

Requirements for the Degree

of

Master of Science

in

Industrial Engineering

May, 1954

Inside  
M 175

## ACKNOWLEDGEMENTS

I wish to acknowledge the invaluable assistance given me by the many consulting firms and insurance companies, who have contributed information for use in this study.

I also would like to express my gratitude to Charles D. Spencer and Associates, Chicago, Illinois, for granting permission to utilize data from their recent survey, entitled, "Pension Plans With Less Than 100 Employees Participating."

Further acknowledgement is due Professor John A. Ritchey of Purdue University for his encouragement and guidance offered me while conducting this study.





# TABLE OF CONTENTS

	Page
ABSTRACT . . . . .	1
INTRODUCTION . . . . .	1
THE NEED OF PENSIONS BY SMALL BUSINESS . . . . .	9
Benefit To The Employer . . . . .	9
Benefit To The Employee . . . . .	11
PENSION PLAN PROVISIONS . . . . .	13
Eligibility . . . . .	13
Normal Retirement Age . . . . .	18
Severance Benefits . . . . .	20
Retirement Benefits . . . . .	24
Other Supplementary Benefits . . . . .	34
Financial Methods . . . . .	35
PENSION PLANS APPROPRIATE TO SMALL BUSINESS . . . .	48
Individual Retirement Income Plan . . . . .	48
Group Permanent Retirement Income Plan . . . . .	50
Deferred Group Annuity Plan . . . . .	51
Combination Plan . . . . .	54
Deferred Profit-Sharing Plan . . . . .	56
SUMMARY . . . . .	59
RECOMMENDATIONS . . . . .	60
APPENDIX A. GLOSSARY OF TERMS . . . . .	62
APPENDIX B. SAMPLES OF PENSION PLAN COST FIGURES .	73
BIBLIOGRAPHY AND CITED REFERENCES . . . . .	81



## ABSTRACT

The general population of the United States is getting older. And more important, the life span of the nation's worker is definitely lengthening, thus increasing the number of those retired. Employment opportunities for the oldster are slim, and as the youth of today does little to provide for the aged, the problem arises of providing security for those in retirement.

The obvious answer is the private pension plan. In order to prevent increased governmental intervention, business must undertake the task of providing this security. The challenge is being met, as may be noted from the rising number of pension plans being adopted. However, the cost of providing such security has made it extremely difficult for small business to participate.

Since the definition of small business is apparently only an opinion, in this study, it is arbitrarily defined as one which employs 100 workers or less.

Small business, according to this definition, comprises 99% of the overall business of the United States. Because of this, the problems of small firms are vitally important to our business structure. This study of material published on pension plans in general and those suitable for small business in particular, has been conducted in an attempt to present to small business an explanation of the pension planning problem. It is hoped that this explanation might prove to be an aid to



small business in designing their pension plans.

An established pension plan fulfills many needs for both the employee and employer. In general, the employee feels more secure, knowing that his old age is being provided for. The turnover is less, and a small business is provided with better employee-employer relations and a reputation of stability.

No one plan can be adopted by all businesses of the same size. Hence, many factors must be considered. Among these are: eligibility, which includes length of service and minimum and maximum age requirements; the normal retirement age; severance benefits, which are usually in the form of vested rights; retirement benefits, which consider fluctuating purchasing power, past service credit and the financial condition of the employer; pre and post-retirement death benefits; disability provisions; and methods of financing. The methods of financing are numerous. In the unfunded type there are the "Pay-As-You-Go" method, which pays retirement benefits directly out of the firm's working capital, and the "Bookkeeping Reserve" method, in which an employer accumulates a reserve as an asset of the company from which to pay pensions. In the funded method of financing, the costs of benefits are actuarially determined and are provided by a fund accumulated during the productive years of the employees. Also, in connection with the financing of a pension plan, the employer must decide whether his plan should be contributory



or non-contributory; and the advantages of pool, area, or industry type plans should be considered.

The various pension plans discussed in this study are of only the insured or partially insured type. Among these is the Individual Retirement Income Plan, which is appropriate for small firms regardless of their size. As a rule, the plan consists of contributing level payments to a pension trust with an appointed trustee, who invests these payments in individual retirement annuity policies usually combined with some form of individual life insurance. Another plan is the Group Permanent Retirement Income Plan. This usually requires 50 employees or more. In this plan, life insurance coverage is made on a group basis, which includes those employees unqualified for individual life insurance. The Deferred Group Annuity Plan consists of purchasing on an annual single premium basis a deferred annuity policy for each eligible employee. The premiums are paid to an insurance company, thus divesting the employer of further liability. In the Combination Plan or Blended Plan, an ordinary life insurance policy with conversion privileges is purchased for each employee at the age of entrance into the retirement program. Also, prescribed payments are accumulated in a supplementary fund. At the designated retirement age, the life insurance policy is converted to an annuity contract by the addition of a lump sum payment from the supplementary fund, thus providing retirement income. In a Deferred Profit-Shar-





ing Plan, an employer contributes a certain percentage of his annual profits to a trust fund. This fund is allocated among the covered employees using a formula based on their wages, or years of service, or both, and the portion of the fund credited to the employee is disbursed to him upon reaching retirement age.

There are advantages and disadvantages to all these plans. However, many are in use and have proved successful in small business.

An attempt to make specific recommendations to small business concerning their pension plans would be futile. Nevertheless, the individual company must keep in mind the needs of its employees, and design its pension program within the limit of its finances. The aid of competent advice from an attorney, banker, insurance agent, or pension consultant, is invaluable in making a pension program successful.



## A STUDY OF PENSION PLANS FOR SMALL BUSINESS

### INTRODUCTION

Only 5,000,000 people of age 65 years or older lived in the United States in 1920. In 1950, there were 11,500,000 which represented some 7 1/2 percent of the total population. It is estimated that by the year 1980 we may have as many as 19,000,000 persons in this category, which will approximate 11-1/2 percent of the total population.<sup>1</sup> It seems quite evident that our oldsters are here to stay.

Not only is there an increase in life expectancy of the general population but the work force of the nation is definitely ageing. Mortality figures usually include the general population. However, the life expectancy of people in business and industry is greater than that of this general population. This difference is due to the inclusion in the general population of many in a state of health which would not be acceptable in the business world. The fact that there is present an increase in the life expectancy of the worker has been verified by a recent study conducted by Mr. Ray M. Peterson, second vice-president and associate actuary of Equitable Society.<sup>2</sup> A new mortality table for pension pur-

---

<sup>1</sup>"What to Do About the Old Folks," Newsweek, March 20, 1950, vol. 35, p. 58.

<sup>2</sup>"New Table Indicates Retirement Reserve May Be Inadequate," National Underwriter (Life Ed.), March 13, 1953, vol. 57, p. 1.



poses is the result of this study. This table indicates that in 1953 the life expectancy of a man at age 65 is 14.96 years; for a man at age 65 in 1963, 15.51 years; and in 1973, 16.15 years. On comparing these figures with the life expectancy of 14.4 years as noted in the 1937 Standard Annuity Table, one can observe the increasing trend of life expectancy of our present and future workers.<sup>3</sup>

Experience has taught us that the chances of our oldsters being able to take care of themselves are slim in the present day and age. Only about 1,500,000 of those 65 or older could support themselves in 1948 on income from investments and savings. Yet, employment opportunities for this age category are poor. At the peak of the war effort only one-third of them were employed, and many of these on farm jobs.<sup>4</sup> Hence, the majority of those 65 and older become retired, willingly or unwillingly as the case may be. The past custom of the younger generation providing for their elders is disappearing. This disappearance might be explained by the higher cost of living. However, a more feasible reason is the ever increasing suburban way of life. Regardless of the reason for the lack of family provision for security of our elders the problem of their security is present, and must be solved.

---

<sup>3</sup>Peterson, Ray. M., "Certainties and Uncertainties in Pension Planning," C.I.U. Journal, Winter 1953, p. 12.

<sup>4</sup>Id., 1, p. 1.



The Federal government has attempted to prevent the problem from becoming too serious by establishing Federal Old-Age and Survivors Insurance, popularly known as "Social Security". The eligibility and benefit restrictions of Social Security are not static, and have been and probably will be revised from time to time. However, the benefits provided by Social Security as retirement pension to those past 65 years of age are far from adequate. They do not provide much more than a subsistence income.<sup>5</sup> This fact has been partially explained by President Eisenhower in his January 14, 1954, Message to Congress.

The Social Security system is not intended as a substitute for private savings, pension plans, and insurance protection. It is, rather, intended as the foundation upon which these other forms of protection can be soundly built.

Consequently, further provision for old-age security is a necessity.

The obvious answer is the use of private pension plans. It has been said by economists that pension plans freeze the work force of the nation and prevent mobility of labor in times of national emergency. A reply to this fear, is that in 1950 men and women of the age of 65 and older comprised 12% of the registered voters. It is felt that eventually these men and women will be able to vote in pension plans that will

---

<sup>5</sup>Alvord, Morgan H., "Combination Pension and Profit-Sharing Plans," The Journal of Commerce, New York, June 12, 1952.





4

be extremely unpopular to business. In order to prevent increased governmental intervention, accompanied by high costs and controls, business must take upon its shoulders the private pension problem.<sup>6</sup>

Another general impetus to the establishment of private pension plans was the U. S. Supreme Court's ruling on a lower court decision in the Inland Steel Company Case. In effect, an employer in interstate commerce must bargain on pension and retirement plans, if his employees' union, qualified under the Taft-Hartley Act, demands it.<sup>7</sup>

The challenge has been accepted by business. The private pension system is not new by any means. However, the growth in number of private pension plans has skyrocketed in recent years. At the end of 1952, it has been estimated that between 15,000 and 16,000 plans of all types were in effect. The figures of 1947 show 6,700 plans in effect covering 1,520,000 people; and 1530 plans affecting 700,000 people in 1940.<sup>8</sup> The most recent evidence of the increasing growth in number of pension plans has been shown in the first two months of 1953, when our plans were being established at the rate of 5,000 per year.<sup>9</sup> Thus business is taking hold of

---

<sup>6</sup>"Too Young to Quit," Business Week, September 3, 1951, p. 164.

<sup>7</sup>"Pension Ruling," Business Week, April 30, 1949, p. 112.

<sup>8</sup>"Pension Funds, Fastest Grower of All," Business Week, March 21, 1953, p. 128.

<sup>9</sup>Goldstein, Meyer M., "New Trends in Pension and Profit-Sharing Plans," The Journal of Commerce, New York, June 19, 1953, vol. 236, p. 3.



the problem of security for its older employees with great interest.

The problems connected with establishing private pension plans are numerous. However, the most important single problem is cost. An estimate made by the late Senator Taft stated that it would cost \$12 billion annually to provide a \$100.00 month pension to everyone over the age of 65. It was found that the 1950 pension bill, including both governmental and private types, cost over 4% of the national income and one and one-half times the cost of the national debt. So it is evident that pensions have become the largest fixed cost of our nation's economy.<sup>10</sup> This high cost has made it extremely difficult for small business to participate in private pension plans.

In order to perceive the pension problem confronting small business, it is necessary to have some conception of the synthesis of small business. The actual definition of small business is nebulous at best. It appears to be a matter of opinion. Naturally, no conflict exists as to the minimum size of a small business. However, there is a great difference of opinion on the upper limit to include small business. The Defense Department has included all having 500 employees or less as small. Whereas the United States Senate, in their 1947 study of small business, set the upper

---

<sup>10</sup> "Cost of Pensions," Fortune, January, 1950, vol. 41, p. 16.



limit at 100 employees, which included some four million small firms, or 99% of the business firms of the nation.. Recognition of small business as "an entity, with labor, agriculture and other groups", was made by an official Senate resolution in 1947.<sup>11</sup> In their 1947 statement on national policy by the Research and Policy Committee of the "Committee For Economic Development", the Committee suggests several tests for smallness.

1. Management is independent. Usually the managers are also owners.
2. Capital is supplied and ownership held by an individual or small group.
3. Area of operations is mainly local. Workers and owners are in one home community. Markets need not be local.
4. Relative size within the industry - the business is small when compared to the biggest units in its field. The size of the top bracket varies greatly, so that what might seem large in one field would be definitely small in another.<sup>12</sup>

Such definition is very meaningful, but does not pinpoint a small business in size. For purposes of this study, a small business has been arbitrarily defined, as one which employs 100 workers or less.

The importance of small business is paramount to the nation and its citizens. Our whole system of business enterprise is built upon the foundation of small business. The

---

<sup>11</sup>"Does Small Business Get a Fair Shake," Fortune, October, 1953, vol. 48, p. 69.

<sup>12</sup>Committee for Economic Development, Meeting the Special Problems of Small Business; New York, 1947.



Research and Development Committee of CED states their opinion of small business importance in the following paragraphs.

Healthy small business means much to the fabric of American life. Small firms help to keep big firms on their toes. The little fellows frequently force competition in price, design and efficiency. By introducing new products or methods or services, small business helps to check the development of monopoly.

Business may be "small" in size yet great in achievement. This was dramatically demonstrated during the war. Small business often could get into action faster and operate more flexibly than big business. The small, specialized supplier often made the output of huge wartime plants possible.<sup>13</sup>

In spite of the great importance of small business to our nation, many problems confront small business which must be solved. One of the problems of major importance to small business is that of finance. In recognition of this, the Small Business Administration (SBA) has been established by Congress as a lending agency.<sup>14</sup> Another problem, along this line of finance, is that of design and establishment of appropriate pension plans in small business. Most small business has found it extremely difficult to develop such programs owing to the high fixed costs involved. In addition, the high cost of servicing small accounts discourages underwriting by insurance companies.<sup>15</sup>

---

<sup>13</sup>Ibid., 12, p. 6.

<sup>14</sup>Ibid., 11, p. 6.

<sup>15</sup>Ibid., 12, p. 6.





The Committee for Economic Development has recommended that possibly research done by colleges and universities might aid small business in specific problems.<sup>16</sup> The following study of material published on pension plans in general and those suitable for small business in particular, has been conducted in an attempt to present to small business an explanation of the pension planning problem. It is hoped that this explanation might prove to be an aid to small business in designing their pension plans.

---

<sup>16</sup> Ibid., 12, p. 6.



## THE NEED OF PENSION PLANS BY SMALL BUSINESS

In this day of high taxes and labor competition, a small business must struggle to maintain its position in its field. The opinion that a pension plan is much too costly to be established by a small business should be questioned. In many cases, it may increase profits rather than decrease them.<sup>17</sup> Furthermore, many industrialists feel that pension plans, in the end, pay for themselves.<sup>18</sup> In any event, there are many factors which should not be overlooked when the desirability of a planned pension program is challenged.

### Benefit To The Employer

A small firm may have a desire to fulfill its moral obligation to those employees who have served them faithfully throughout the years. The fulfillment of such an obligation by a firm in a small community may be necessary to maintain the good will of the community, which helps attract added business.<sup>19</sup> Superannuated personnel may be gracefully retired rather than continued on the payroll, thereby increasing operating efficiency and reducing costs.<sup>20</sup> This

---

<sup>17</sup> Hazard, F. A. Jr., "Pension Planning", Life Association News, February, 1953, p. 28.

<sup>18</sup> Woodbury, Clarence, "What You Should Know About Pensions," American Magazine, June, 1951, vol. 151, p. 30.

<sup>19</sup> Ibid, 17. p. 9.

<sup>20</sup> Ibid, 18. p. 9.



elimination of personnel obsolescence permits the influx of new ideas. Furthermore, the knowledge of scheduled retirement of senior personnel encourages the younger employee in his thoughts of promotion, thus improving his morale and efficiency. In addition, the feeling of increased future security encourages the older employee to give freely of his knowledge and skills in training younger employees who might succeed him.<sup>21</sup> The disadvantage of not being able to recruit and hold skilled labor in competition with large concerns may be offset.<sup>22</sup> Such a reduction in turnover would undoubtedly reduce costs of employment, personnel training, and accordingly, the cost of waste or breakage of material and machines. An established pension plan provides protection against possible future union demands, which might prove expensive.<sup>23</sup> An established plan provides for a gradual accumulation of the inevitable pension expense, preventing undue costs in an unprofitable period. Such an existing plan also may increase the potential value of a business, which may encourage a buyer to pay more.<sup>24</sup> Not to be forgotten, is the tax economy which is present in an established plan for the officer-owners of small corporations.<sup>25</sup> In

---

<sup>21</sup>Ibid., 17, p. 9.

<sup>22</sup>Ibid., 12, p. 6.

<sup>23</sup>Ibid., 17, p. 9.

<sup>24</sup> Spencer, Charles D., Lets Get Tough About Pensions, (A printed sales pamphlet)

<sup>25</sup>Ibid., 17, p. 9.



general, a pension plan provides a small business with better employee-relations and a reputation of stability.

### Benefit To The Employee

The knowledge of security, at such time as an employee is obliged to retire, creates a happier, more efficient and more loyal employee. The fear of a dependent old age is removed. He is able to give more concentration to his work, thus increasing his efficiency and possibly his paycheck. Employee trusts are provided with tax advantages which permit a much faster accumulation of money for the employee than he could personally save. In a non-contributory pension plan, the credit set aside for the individual is not taxable until the employee is usually 65 years of age, and eligible for double personal exemptions. These may be supplemented by extra exemptions for a wife over 65. Furthermore, his income is reduced. Hence, his income taxes will be at a minimum upon retirement. In this way, an employee is again able to save considerably more through the use of the pension plan, than by means of personal savings. Actuaries contend that each dollar received by a retired employee is worth \$1.30 in take home pay.<sup>26</sup> Thus an employee cultivates a feeling of accomplishment as his pension credits

---

<sup>26</sup>Ibid., 13, p. 9.





accumulate. A pension plan providing a definite retirement schedule gives the employee greater assurance of earned advancement. The realization of his inevitable retirement encourages an employee to initiate plans for his retired future, and hence is able to successfully meet the emotional and financial adjustments of retirement. Such realization also tends to increase his feeling of belonging as one of the permanent employees. In addition, if insurance provisions are provided in the plan, the younger employee is aware of security for his family, and thus receives a boost in morale. In effect, an established pension plan provides evidence to the employee, that his employer considers him as a permanent member of the company team, and has the employee's interest at heart.



## PENSION PLAN PROVISIONS

Prior to choosing a specific plan for a small business, an adequate knowledge of the component parts of a plan must be attained. Only too often a plan is picked because some larger firm in the same type of business has successfully used this plan. Or, a plan may have been highly publicized by its authors, or widely proposed by unions. Frequently, such a choice leads to financial embarrassment of one or both parties involved. Hence, an alteration or amendment of the initial plan is called for. Such action defeats the original purpose of a pension plan, in that it affects a demoralization of the employees due to a feeling of doubtful security. And too, the reputation of the company is degraded. No one plan with specific provisions can be adopted by all business of the same size. The success of a private pension plan is based upon its ability to fulfill the specific requirements of the employer and his employees. Consequently, an enumeration and explanation of the alternatives concerning the various features of a pension plan is necessary.

### Eligibility

The primary purpose of creating eligibility restrictions is to prevent undue financial obligation of the company without some value in return. One purpose of a pension plan is to limit the turnover of desirable employees. Since the majority of turnover occurs during the first few years of



service with the company, service restrictions are usually included. This is particularly desirable for small business with limited resources from which to meet the cost of their pension plan. Service requirements tend to eliminate from the plan, short time employees such as women, who only work until married, and others in a part-time category. Such elimination reduces the expenses of record keeping and administration for those whose employment is likely to terminate early.<sup>27</sup> When the plan is underwritten by an insurance company, service requirements provide some safeguard against paying surrender charges often required to return money to a general fund.<sup>28</sup> In a recent survey of pension plans involving small business, as handled by their company, the Massachusetts Mutual Life Insurance Company found that, "somewhat less than 50% specified a waiting period of 5 years, while the balance mixed at about 3 or 4 years, or in some instances, shorter requirements for present employees than for those to be hired in the future."<sup>29</sup>

To further confine expenditures to the personnel most

---

<sup>27</sup>Goldstein, Meyer M., "Pension and Profit Sharing Plans," The Financial Handbook, Third Edition, Revised; section 23, The Ronald Press Co., 1952.

<sup>28</sup>Boyce, Carroll, How To Plan Pensions; New York, McCraw Hill Book Company, Inc., 1950.

<sup>29</sup>A letter received from Mr. E. James Stephens, Manager of Pension Trust Sales, Massachusetts Mutual Life Insurance Company, Springfield, Massachusetts.



likely to remain with a firm, it is customary for small firms to enforce a minimum eligibility requirement for participation in the plan. The purpose of such a restriction is similar to that of the service requirements. It insures against the instability of youth. However, it may postpone part of the cost of an employee's pension because of the reduced number of years of participation. Furthermore, such a deferment, when a funded plan<sup>30</sup> is employed, will increase the annual cost to the company during these years. Frequently, the more restricted the eligibility requirements are, the smaller are the retirement benefits received. Another objective of a minimum age restriction concerns the willingness of a younger employee to participate. If the established plan is of the contributory type, an employee in his early years of employment may not feel able, or simply lack the desire, to participate in his future retirement plan.<sup>31</sup> When an employee becomes eligible at a later age, he is more apt to have decided on plans for future employment, which again, reduces the cost risk of the employer. Massachusetts Mutual's survey determined that approximately 50% of the plans investigated required the employees to be 30 years of age before participation, and the remainder required less. However, participation in very few plans was

---

<sup>30</sup>Refer to Appendix A for glossary of terms.

<sup>31</sup>Ibid., 27.





allowed before the age of 25.<sup>32</sup>

In a survey dated April 1, 1953, and conducted by Charles D. Spencer and Associates, Inc., for their "Employee Benefit Plan Review-Research Reports", 317 pension plans were analyzed, in which less than 100 employees participated. 253 of these plans are definitely included by the definition of small business, as previously stated. Possibly more of the 317 plans studied may be included. However, their total number of employees was not stated. This survey was conducted on material obtained from leading consultants throughout the country concerning plans established in manufacturing firms, retail-wholesale firms, service firms and others not included in the previous categories. Of these 317 plans, 62% or 197 used an age plus service requirement for eligibility. The highest age requirement was 35 years with the lowest required age, if any, set at 18. However, in very few cases did the minimum age exceed 30. The service requirements listed ranged from none required up to 5 years.<sup>33</sup> In the majority of cases observed, either age requirement, service requirement, or combinations of both were noted. Such restrictions appear to be advantageous in most small business pension plans.

---

<sup>32</sup>Ibid., 23, p. 14.

<sup>33</sup>Charles D. Spencer and Associates, Inc., "Pension Plans With Less Than 100 Employees Participating," Employee Benefit Plan Review - Research Reports, section 101.



There is an advantage for small business to include a maximum age requirement. This excludes from the pension program those employees who have attained an age which would require costly employer obligation. Such employees might be provided for more economically by "out-of-pocket" payments upon their retirement. However, this method does not assure an older employee of future security, since there is usually no contract involved. The employer has another option which quite often is included in pension contracts underwritten by insurance companies. A minimum of a certain number of years service may be required past a certain age, to allow sufficient pension credits to accumulate. For example, an employee hired at age 55 might be required to serve for 15 years prior to his retirement, although the normal retirement age might be 65. This option denies to the employer the advantage of releasing superannuated personnel. Unfortunately, company pension contributions are approximately 4 times as much for an employee hired at age 50, as for one employed at age 25.<sup>34</sup> Nevertheless, in designing a pension plan a compromise of desires must be made.

Further restrictions as to type of work, place of work, and nature of compensation may be included in a plan. Yet, the present tendency is for full coverage with a pension program, which reduces the need for restrictions. One point

---

<sup>34</sup>"It Costs Too Much," Business Week, May 9, 1953, p. 173.



must be remembered in designing eligibility requirements. In order to provide full tax-advantage to a pension program, the plan must be "qualified".<sup>35</sup> Such approval by the Bureau of Internal Revenue requires that the pension plan be non-discriminatory as explained in Section 165(a) of the Revenue Code.

### Normal Retirement Age

Many employers feel that an employee should be retired when he is unable to earn his salary. Other employers fear the inefficient use of the manpower resources of the country, and contend that there should not be compulsory retirement. A solution to this problem can only be an opinion, and hence, will not be pursued in this study. However, several aspects of the question should be discussed.

The normal retirement age is usually specified at 65 years of age. This is mainly due to the fact that Social Security benefits commence at this age. Therefore, retirement prior to 65 would place the retired employee in a drastically reduced income bracket. Furthermore, Social Security benefits are forfeited between the ages of 65 and 75, if a person earns more than \$75 a month in employment covered by the law.<sup>36</sup> Hence, in order to take full advantage of Social

---

<sup>35</sup>Refer to Appendix A for glossary of terms.

<sup>36</sup>Your Social Security; U. S. Government Printing Office, 1953.



Security, the age of 65 has been chosen as the normal retirement age.

It is true that all workers do not become superannuated at a uniform time. A worker's ability to maintain his efficiency is mainly dependent on his type of employment. For this reason, different types of business require considerably different retirement ages.

Another consideration is the desire of the employee. 3000 policyholders of Northwestern National Life Insurance Company were asked their feelings toward retirement at age 65. 24% seemed quite satisfied. But 37% would much rather continue working.<sup>37</sup> Their jobs had become centers of life to them. Furthermore, the present trend of thought of most unions opposes compulsory retirement. In fact, one of the major problems concerning bargaining committees is the worker's self-determination of his retirement age.<sup>38</sup> Hence, employers who must bargain with qualified unions, must consider the retirement age in possibly a different light.

The question of retirement age is an important one, especially to small business. This question is vitally connected with a firm's financial status. The actuarial cost per dollar of pension of retiring an employee at 65 is half that of retiring him at age 60.<sup>39</sup> Consequently, a lowering

---

<sup>37</sup> Ibid., 6, p. 4.

<sup>38</sup> "Some Observations of Labor on Retirement Security," Monthly Labor Review, December, 1951, vol. 73, p. 699.

<sup>39</sup> Ibid., 13, p. 9.





of retirement age is unlikely in small business. However, late retirement may be necessary to comply with eligibility provisions. And too, it is not unusual to allow an employee to continue active service with the consent of the employer until some later compulsory retirement age. This may lead to poor administration of the retirement plan, and it does defeat one purpose of the plan -- removal of superannuated personnel.<sup>40</sup> Until recently, an employer was compelled to permit an employee to retire at the stated normal retirement age of the plan. Also, if employment was continued with the sanction of both parties, additional employer contributions to the pension fund could not be made for the added years of employment. However, a new treasury ruling, ruling 33, permits an employer to provide pension credit for additional employment beyond the stated retirement age, thus providing increased retirement benefits.<sup>41</sup> So it appears that the trend is toward a higher normal retirement age.

#### Severance Benefits

In pension plans, severance benefits are usually provided in the form of vested rights for the employees. This means that an employee upon severance of employment for any reason prior to normal retirement age, is permitted to with-

---

<sup>40</sup>Ibid., 27, p. 14.

<sup>41</sup>"Treasury Ruling Seen Stimulating Pension Spread," National Underwriter (Life Ed.), April 10, 1953, vol. 57, p. 1.



draw a portion of the contributions made in his behalf by his employer. Usually, vested rights are provided only on permanent severance of employment, on discontinuance of participation in a voluntary contributory plan, and on death prior to retirement.<sup>42</sup> This severance benefit, vested, due to death prior to retirement, is paid to the employee's designated beneficiary. Employee contributions are usually returned to the employee or his beneficiary on death, with or without accumulated interest. Such return of employee contributions are not included in the vested category. When vested rights are provided, the employer's contribution may be withdrawn in the form of cash or in the form of deferred benefit, as specified by the plan. Deferred benefits are recommended. It is not, however, necessary to include vesting privileges in a pension plan in order for it to qualify under section 165(a) of the Internal Revenue Code. However, the decisions of the Bureau of Internal Revenue concerning vesting are not always predictable. But if the plan to be qualified in no way discriminates in favor of a certain category of employees, either in sense or in word, the plan will usually be qualified.<sup>43</sup>

Vesting privileges are provided mainly to increase interest in the pension plan among younger employees. Such

---

<sup>42</sup>Ibid., 29, p. 14.

<sup>43</sup>Pension Planning Fundamentals; New York, Central Hanover Bank and Trust Company, 1948.



increased interest can be attributed to the more immediate benefit to the younger employee as provided by vesting. It also provides some feeling of security to the employee whose thoughts are far removed from retirement. Vesting rights allow unhappy employees to sever themselves from the employer, without having to remain to protect their pension credits. This may be of considerable benefit to the employer. He may also rely on the vesting rights established by his pension contract to allow him gracefully to remove physically disabled and even incompetent employees, prior to normal retirement.<sup>44</sup>

Since the inclusion of vesting privileges is controversial, there are also disadvantages. One argument is based on the premise that employee turnover is increased with vesting. However, this may be combated by the use of gradual vesting by means of an initial waiting period before vesting is allowed, and then by the use of gradual vesting in which the vested right increases with years of service. The younger class of employee, to which most turnover is attributed, would receive no employer contributions. It would not be until an employee had served a specified number of years, when severance would be less likely, that his vested privileges would become costly.<sup>45</sup> The latter case introduces

---

<sup>44</sup>Ibid., 43, p. 21.

<sup>45</sup>Meuche, Arthur J., Successful Pension Planning; New York, Prentice-Hall, Inc., 1949.



the most important disadvantage---the cost involved. The cost to the employer of his pension plan may be reduced by unvested contributions assigned to a severed employee. The cost benefit to the employer is dependent upon the type of retirement plan in use. Another disadvantage may be attributed to the increased administration costs of vesting in a self administered or trust type of plan. To maintain records and the whereabouts of an employee who has early severed his relations with a firm, will undoubtedly be expensive and difficult.<sup>46</sup>

The decision on vesting privileges is a problem of balance of the company's desires. If a firm is capable of providing severance benefits, and still provide the retirement benefits which an employee needs, such a severance benefit is highly recommended. However, if a limited budget prevails, as in most small business, the most important provisions should be provided first.<sup>47</sup>

The popularity of vested rights is apparent in present plans. Unions have become great advocates of vested rights. Yet, in many pool or area plans as proposed by unions, gradual vesting provisions are used. Such plans provide full vesting in member firms, but apply restrictions to severance

---

<sup>46</sup>Ibid., 45, p. 22.

<sup>47</sup>Goldstein, Meyer M., "Current Problems On Pension Plans," The Journal of The American Society of Chartered Life Underwriters, June, 1952.





from the included area, industry or pool plan.<sup>48</sup> In the plans included in the survey, conducted by Charles D. Spencer and Associates, over 115 different vesting methods were found out of the 317 plans surveyed. Their research report indicated three main vesting provision patterns.

1. Partially-graded vesting starting the first year plus the same percentage each year until 100% vested, with several variations where the initial percentage is increased or decreased. There are 46 plans on that basis or about 14% of the total.
2. Partially-graded vesting after an initial waiting period ranging from one year to 15 years. This is similar to the first method except for the waiting period. There are 169 plans on this basis, or about 52% of the total.
3. 100% vesting after a period of time, with an age qualification in some cases, is provided under 28 plans or nearly 19% of the total.

The report also indicated that the most popular waiting period used in graded vesting provisions was 5 years.<sup>49</sup>

An employer must analyze the vesting problem carefully, especially in small business. Needed funds should not be diverted from the primary plan purpose for less important benefits. Yet, if severance benefits are specified, they must be included in the plan as a sincere gesture.

### Retirement Benefits

The decision of how large the benefits at retirement should be, is of great importance to an employer designing a

---

<sup>48</sup> "Pension Plans," Business Week, March 13, 1954.

<sup>49</sup> Ibid., 32, p. 16.



plan. The pensions received by his employees must be sufficient to provide an adequate standard of living after retirement. As a rule, the cost of providing such pensions is the limiting factor. The decision by the employer of the appropriate and possible cost obligation is a serious one. Upon such decision depends the success or failure of the pension plan. If the pensions provided are high enough to require an undue expenditure on the employer's part, the plan will fail. Similarly, if the pensions provided are too small, the plan will fail. Benefits which are too small tend to promote disinterest of the employees in their pension plan. Such benefits can not provide adequate retirement income, which may force the pensioned employee into becoming a problem of the community. Such an occurrence would undoubtedly have a serious effect on the firm's public relations.<sup>50</sup>

Although contributory plans usually increase the retirement pensions received, the consensus of opinion of Industrial Relations men of both large and small companies, is that 40% of the employee's wage at retirement is necessary to provide retirement with the minimum amount of friction.<sup>51</sup>

Actuaries contend that after retirement there are no longer any payroll deductions. Social Security benefits are free from Income Tax. And, with reduced income an employee

---

<sup>50</sup> Ibid, 13, p. 9.

<sup>51</sup> McDonald, Edwin C., "Some Current Trends in Retirement Plans," The Journal of Commerce, New York, June 19, 1953, vol.. 236, p. 4.



is placed in a lower tax bracket. Furthermore, an employee usually has reared his family, probably paid for his home, and has paid up at least some policies of his insurance program. Also, an estimate has been made that 2/3 of the families of the United States are not solely dependent, after the worker's retirement, on pension benefits alone.<sup>52</sup> So it appears that the 40% figure is probably fair.

40% of an employee's annual salary is an expensive item to provide. The actual cost of providing a 65 year old with \$100 a month pension for life is a striking amount. \$14,000 to \$16,000 would be required to provide such a pension, if purchased with a single payment. Needless to say, these figures are far more impressive than the \$100 a month benefit. This benefit would be approximately that received upon retirement by an employee earning an average monthly salary of \$350, when a benefit of 1% of the average salary is provided. In order to provide a similar benefit, an employer would probably contribute \$20 to \$25 per month for the average employee.<sup>53</sup> Hence, the final decision of an employer to pay any specific amount in his pension program must be a sound one.

Another problem for consideration by the employer when deciding upon the amount of retirement benefits, is that of providing adequate purchasing power to the retired employee. Due to an inflationary environment, an employee, on retiring,

---

<sup>52</sup> Ibid., 18, p. 9.

<sup>53</sup> Rice, Henry, "Stacking Up Money for Pensions," The Commercial and Financial Chronicle, June 18, 1953, vol. 177, p. 2630.



may find that a pension previously thought adequate, may turn out to be definitely inadequate. His purchasing power may be drastically reduced, and similar embarrassment to that previously mentioned, may occur. To compensate for the loss of purchasing power, the United Auto Workers Union has proposed demands that cost-of-living escalator clauses be extended to pension plans.<sup>54</sup> Another answer to the loss of purchasing power is the use of a Trust type pension plan or combinations thereof. It has been suggested that 30% to 40% of Trust Fund capital be invested in common stocks which have a tendency to fluctuate in value along with inflated prices. Hence, a retired employee's share of the pension fund would also fluctuate, thereby increasing his pension during rising prices, and decreasing the pension during the deflationary periods.<sup>55</sup> Deferred Profit Sharing Plans have also been advocated as cures for fluctuating purchasing power. Some people contend that there are psychological objections to the retired employee, who receives a pension of a fluctuating amount. Nevertheless, it would seem doubtful because of the usual lack of available funds that a small business would be able to provide benefits to compensate the loss of purchasing power. However, one possibility might be the use of a Defer-

---

<sup>54</sup>"Bigger Pensions in 1953," Business Week, March 14, 1953, p. 176.

<sup>55</sup>Calvert, N. Geoffrey, "Taking the Gamble Out of Pensions," Public Utilities Fortnightly, March 26, 1953, vol. 51, p. 415.





red Profit Sharing Plan or Trust Fund Type Plan with the fund invested in common stock. Such suggestions, as have been mentioned, do not provide a firm with the ability to budget annual pension costs, and hence, are usually avoided.<sup>56</sup>

One of the most difficult problems an employer faces, when designing his pension plan, is the matter of providing retirement income for the years previously served by his employees. When a pension plan is adopted, many employees have already reached an advanced age. In order to provide these employees with an adequate retirement income, their years of past service must in some way be considered. This problem arises when a percentage type benefit formula is being used. The cost of past service credit may prove staggering.<sup>57</sup> This fact has often discouraged the initial establishment of a pension program. However, costs may be kept to a minimum by refusing to credit past service. Such practice will probably prove harmful to the success of the pension program and is not recommended. Nevertheless, it is the opinion of some employers, that future employees should not be penalized by receiving inadequate benefits because of the failure or inability of the firm in establishing past

---

<sup>56</sup>Eder, George J., "Taking the Gamble Out of Pensions-- Perhaps," Public Utilities Fortnightly, July 2, 1953, vol. 52, p. 23.

<sup>57</sup>Refer to Appendix B for sample cost figures.



service funds. Another remedy may be the establishment of higher eligibility restrictions. Or, only a specified number of years or past service may be allowed for credit calculations.<sup>58</sup> The most common solution is to vary the percentage of annual wage between past service and future service benefits. When the annual wage of the employee, at the time of adoption of the plan, is used to determine past service benefit, the past service percentage is often  $1/2$  or  $3/4$  of the future service rate.<sup>59</sup> In any case, a decision must be made as to the utilization of past service. If the decision is to include past service benefits, the cost of funding such benefits may be paid in a lump sum or amortized over a period of 10 or more years. The payment of a lump sum does have the advantage of acquiring tax free interest, which in turn will reduce future pension obligations. However, this method of covering the cost of past service benefits is usually not applicable to small business because of the amount of capital required. If amortization of the past service obligations is decided upon, the sum may be amortized over a period of years up to even 40 years.<sup>60</sup> The only restriction, placed on such amortization by the Bureau of Internal Revenue, is that an employer is not allowed to deduct from his income

---

<sup>58</sup> Ibid., 43, p. 21.

<sup>59</sup> Ibid., 45, p. 22.

<sup>60</sup> Refer to Appendix B for sample cost figures.



an amount exceeding 10% of the past service pension costs in any one year. Such restriction does allow for a carry-over deduction for any period in which the maximum amount allowed is not contributed.<sup>61</sup> However, it is improbable that this would occur in a small business, unless the firm's profits had high fluctuation. One contention is that during exceptionally profitable years, as large an amount as possible should be contributed to take advantage of the untaxable interest provided. Whether either of the above methods of providing for past service is used, it should be remembered that the past service problem will gradually die out as the long service employees are retired.

In designing a retirement benefit formula a study must be made of the personnel data, the history, the policies, and the financial condition of the employer.<sup>62</sup> With these considerations in mind, an employer may choose from four major benefit formula types. One type, the "Flat Benefit Plan", provides a specific amount of retirement income to the employee, regardless of salary or length of service. This method usually provides for a very high eligibility age, and the possibility of dissatisfaction among the employees. Most plans contracted with unions have evolved in this type.

---

<sup>61</sup> Ibid., 27, p. 14.

<sup>62</sup> Gardner, Esmond B., "Trusteed Plans," Trends in Retirement Planning; New York, American Management Association, 1943.



Nevertheless, the unions are not expected to remain satisfied with such benefits. Consequently, few small firms employ this type of plan.

A second type, the "Flat Percentage of Income Plan", provides retirement income based on earnings. The earnings may be average annual wage, the highest annual wage received, or the average annual wage over a designated number of years prior to retirement. In any case, the annual wage as a rule, includes only base wages without overtime or bonuses. This type of formula usually determines benefits by applying a certain percentage to the average annual wage of an employee. The Charles D. Spencer and Associates survey determined that 25% of pay is the most popular among the small firm plans analyzed. However, the percentages used varied from 60% (less Social Security) down to 10%. They also determined that about 29% of the 317 plans used this type of formula.<sup>63</sup> Nevertheless, it is not recommended, because the costs are usually high for workers who are employed at a late age. Furthermore, benefits provided may tend to be out of proportion to services rendered.<sup>64</sup> Variations of this type of formula are being used, in which a small percentage of past and future service pay, say .5%, is added to a flat percentage of the employee's pay.

---

<sup>63</sup>Ibid., 33, p. 16.

<sup>64</sup>Ibid., 28, p. 14.





A third type of formula, "Percentage of Pay Times Years of Service Plan", is probably the most popular method. It takes into account both the duration of service rendered by the employee and the annual pay which he has received. Variations as to the definition of pay may be used in this formula. If the average annual wage is used to determine the retirement benefit, the pension costs may be accurately contributed. However, if the average annual pay for ten years prior to retirement is used, an estimation of the correct contribution during the early employment years is difficult. Hence, the possibility arises that an employer might be unable to meet his future obligations during low profit years. 113 plans, or 36% of all investigated in the above survey, used the "Percentage of Pay Times Years of Service Plan". Of these plans, a variation was observed in the use of different percentages for past and future service pay. Of those with split service percentages, 1% of future service pay plus .5% of past service pay was the most common. Other variations observed were .5% past service plus .75% of future service, and .75% of past service pay plus 1% of future service pay. A little over half of the 113 plans used the same percentage for both past and future service pay. The most prominent figures were .75% and 1%.<sup>65</sup> If the "percentage of annual income" variation is used, the retirement

---

<sup>65</sup>Ibid., 33, p. 16.



income is provided by the percentage of each years annual income, while it is being earned. Therefore, the employer is capable of accurately planning his pension costs. One disadvantage to the "Percentage of Pay Times Years of Service Plan" is that highly skilled men or men of outstanding qualifications, who are brought into a firm after they have reached a later age, do not receive adequate recognition.

To overcome the obstacle of inadequate recognition, "The Churchill Formula" has been devised in which a combination of the "Flat Percentage" and the "Percentage of Pay Times Years of Service Plan" has been utilized.<sup>66</sup> A description of this plan has previously been noted as a variation of the "Flat Percentage Plan". This plan may be appropriate for small business in special cases, and it is being used. In the above survey, 5 of the 317 plans installed provide for 30% of pay plus .5% of past and future service, and 4 plans provide 20% of pay plus the same percentage for service.<sup>67</sup>

The decision to be made on the amount of retirement income, and the design of the benefit formula to be used to provide this income, are obviously critical ones. It should be remembered that the employer must strike a balance between the interests of his employees, and his ability to pay. Thus, the retirement income provision of a plan is of vital impor-

---

<sup>66</sup>Ibid., 23, p. 14.

<sup>67</sup>Ibid., 33, p. 16.



tance to the overall success of the pension program.

### Other Supplementary Benefits

In most pension plans some provision is incorporated to provide pre-retirement death benefits to the included employees. Such a provision is a means of providing family security for the young employee, whose benefits, under most types of plans, will not have accumulated. The young employee may have greater family responsibility during his early years of employment, and hence, if possible, desires the provision for his family's immediate security. If such provision is included in the pension plan as insurance, which is the most common method, the employee must include as taxable income the portion of the employer's contribution attributed to the employee's death benefit.

Post retirement death benefit provisions are usually included in insured pension plans. Such provisions are provided by a clause designating benefits for life or ten years assured. After death, if death occurs prior to 10 years from the date of retirement, the retired employee's beneficiary receives the balance of the assured payments. However, in most self-funded plans the pension ceases upon the death of the retired employee. If the plan is contributory, the employee's contributions, not applied to a life insurance purchase, are returned to the beneficiary with or without interest. Another variation is to return the employee's contribu-



tion, minus the amount of pension received since retirement.

Disability provisions are sometimes provided by a small firm's pension plan. Some insured plans include all such benefits in a packaged type plan, where the savings accrued by one benefit supplement the expense of another. Hence, the total cost remains within reason. However, the thought that added expense accompanies each benefit, must not be forgotten. The provision of retirement income is basic to a pension plan, and must not be penalized by an overabundance of supplementary benefits.

#### Financing Methods

The actual cost of a pension plan is commonly said to be made up of the payments made to employees after retirement, plus cost of administration, minus income, if any, earned by the plan. Pension costs cannot be accurately calculated in advance, since they depend on such things as the employees' mortality rate, rate of severance, rate of disability, and interest on money involved. Many methods of financing pensions have evolved due to this inability to predict pension costs accurately.

One financing method is referred to as the "Pay-As-You-Go" method. It is of the unfunded type, which means it is not provided for by an irrevocable trust or underwritten by an insurance company. In essence, this method involves paying retirement benefits directly out of the firm's working





capital, as the benefits become due. This method appears to be the cheapest during the initial years of a plan. But, as more employees retire the cost inevitably increases. A recent study indicated that for a specific plan, the "Pay-As-You-Go" method cost less for the first 17 years. At such time, the cost of this method exceeded that of funding the same plan.<sup>68</sup> Advocates of this method contend that young firms, and especially small firms, are in need of working capital, which would be required by the funded method. However, a pension plan may provide more working capital. In other words, it is permissible for a company to borrow from its employee pension plan when set up as a trust.<sup>69</sup> A definite disadvantage of the "Pay-As-You-Go" method is its failure to provide for employee security. This method does not guarantee the continuance of a pension during poor profit years or when a business changes hands. Furthermore, there is no tax saving except on the actual pension payments made to the employees. In short, this method of pension financing is not recommended.

Another variation of the unfunded type of financing is referred to as a "Bookkeeping Reserve". In this method, an employer accumulates a reserve from which to pay pensions.

---

<sup>68</sup> Ibid., 47, p. 23.

<sup>69</sup> Goldstein, Meyer M., "Tax Pitfalls In Pension and Profit Sharing Plans in A Defense Economy," Reprint from Proceedings of New York University Institute on Federal Taxation, 1953.



However, this reserve is maintained as an asset of the company. The provision of employee security is again missing, since the reserve may be used as and when the firm wishes. Hence, the capital necessary to pay benefits may not be available when needed. The reserve belongs to the employer, and it is subject to changes in policy and to the rights of creditors. Also, interest earned by such reserve is subject to corporate income tax. Hence, this variation of unfunded type financing is also not recommended.

The popularity of funded financing of pension plans is indicated by the recent number of funded plans. In 1952, about 16,000 pension plans were of the funded type.<sup>70</sup> Such popularity is not unfounded. In the funded method of financing, the costs of the benefits are actuarially determined. The retirement benefits are provided by a reserve fund established during the productive years of the employees.

The reserve fund may be provided in several ways. "Level Payments" actuarially determined, may be contributed to the fund during each of the employee's productive years. Hence, the pension benefits are provided out of profits from current production, and the employee is helping to provide his own retirement income. By using level payments the employer's contribution remains the same throughout the duration of a worker's employment. However, another means of funding,

---

<sup>70</sup> Ibid., 27, p. 14.



called "Step-Rate Funding", provides for rising cost each year for a unit of retirement income. In this method, the cost of each year's pension credit is funded during that year.<sup>71</sup> Both of these methods are actuarially sound, since the amount of contribution provided is adequate to guarantee the retirement benefits promised, providing the assumption on employee mortality is correct.<sup>72</sup> An incorrect assumption in estimating the mortality rate of the employees of a small business could produce disastrous results in the concern's ability to pay its pension obligations. However, this danger is provided for by applying a statistically calculated safety margin to the amounts funded, or by basing the mortality assumption on the combined personnel histories of several similar companies.<sup>73</sup>

There are numerous advantages to a funded plan. Only a funded plan may be "qualified" by the Bureau of Internal Revenue.<sup>74</sup> Such qualification provides several tax-advantages within limits prescribed by section 25(p) of the Internal Revenue Code. Contributions of the employer may be deducted

---

<sup>71</sup>Seminar of the New York State School of Industrial and Labor Relations, Cornell University; Prepared by the G. Gilson Terriberry Company, February 4, 1954.

<sup>72</sup>Ibid., 28, p. 14.

<sup>73</sup>Ibid., 3, p. 2.

<sup>74</sup>Ibid., 45, p. 22.



from taxable corporate income during the years in which contributions are made. Also, any interest earned by qualified pension funds is exempt from income tax. Furthermore, retirement income, as provided by a qualified funded plan, may be considered capital gain in retired employee income tax calculations.<sup>75</sup> Thus, the funded plan costs less. In a recent study concerning the cost of identical benefits as provided by funded and non-funded plans, it was determined that, after tax considerations, the cost to the employer, when using a funded plan, would be less than 2/3 of the cost required by a non-funded plan.<sup>76</sup>

The advantage of security is emphasized by the funded method. The fund is always available to pay retirement income to the employee upon retirement. Furthermore, since this plan is usually qualified under the Internal Revenue Code, the employer is not free to terminate the plan without the Bureau of Internal Revenue's consent. Such consent is only given when the discontinuance of the plan is required by business necessity. If termination is allowed during the early years of a plan, the employer will be taxed on his previous contributions. Therefore, it behooves an employer to establish a plan which he is able to continue. Thus, the employee's retirement is further guaranteed, which tends to

---

<sup>75</sup>Ibid., 27, p. 14.

<sup>76</sup>Ibid., 68, p. 36.





to maintain good employee relations.

Another argument is often suggested in selling funded plans. The funding method of financing pensions is analogous to the method used in machine replacement, where the value of the machine is amortized throughout its productive life. Similarly, the cost of employees retirement should be amortized throughout their productive life. In this way, the costs of the pension are provided during the years of the worker's employment, rather than by requiring excessive costs at possibly some less profitable future time.<sup>77</sup> Since the employer's pension obligations are provided in advance, the possibility of a small firm's needing to terminate the plan due to business recession, is reduced. Thus, the employee's retirement income remains secure.

Past service credits are usually provided with a funded plan. This fact is considered by some as a disadvantage because of the initial capital outlay when establishing a plan. However, since in a qualified plan, an employee is permitted to amortize this amount over as many as 40 years, the past service credit is not all initial payment.

Another advantage to funding a pension plan is that this method is conducive to contributory aid by the employees. Such employee contributions may be utilized to reduce the cost of the employer's obligation, or they may provide in-

---

<sup>77</sup> Ibid., 45, p. 22.



creased retirement income for the employees. In the funded plan, security is provided to employee contributions, since the fund is not available to the employer as operating capital.

After considering the previously stated advantages of the funded method of financing, it is highly recommended that a pension plan be funded. Furthermore, in order to take full advantage of the funding principle, it is recommended that funding of a plan should not be postponed. Such postponement of funding for the retirement of any specific group of employees only increases the cost of retirement.

In connection with the financing of a pension plan, the decision must be made by the employer as to whether his plan should be contributory or non-contributory. Emphasis was placed on the use of contributory plans during the war years. This was partially due to rulings of the Wage Stabilization Board, which disallowed wage increases to attract employees. Furthermore, the presence of excess profit taxes diminished the cost of employer contributions. However, the trend is returning to contributory type plans, since federal corporate income tax rates have been reduced, rendering employer contributions less valuable as tax deductions. In a pension study conducted in 1949 which covered 255 companies of various sizes, it was determined that 60.5% of small firm plans were contributory. This proportion was slightly higher than



in larger groups.<sup>78</sup> Nevertheless, advantages to both methods are available.

In the non-contributory plan,<sup>79</sup> the employer has complete freedom on the decision of benefits and retirement age. The plan covers all eligible employees, not only those who wish to participate. Furthermore, the employer's contribution retains a tax-advantage; whereas any contributions from the employee would be included in the employee's taxable income. A reduction of cost is also attributed to the reduction in administration expense, when a non-contributory plan is used. Also, the credit for the pension plan is completely vested with the employer.<sup>80</sup>

On the other hand, a contributory plan,<sup>81</sup> does reduce the employer's contribution to some degree. Enthusiasm for the plan is stimulated because the contributory plan usually provides more liberal benefits. And too, the plan promotes thrift on the part of the employees. Such employee contributions, as a rule, build up interest which is applied to the amount of contributions. This promotes liberal vesting to the employee and death benefits to his beneficiary. Further

---

<sup>78</sup>"Company Pension and Group-Insurance Plans: Cost Sharing," Monthly Labor Review, March, 1950, vol. 70, p. 298.

<sup>79</sup>Refer to Appendix A for glossary of terms.

<sup>80</sup>An Aid In Drafting Pension Agreements; 1953, National Life Insurance Company, Montpelier, Vermont.

<sup>81</sup>Refer to Appendix A for glossary of terms.



appreciation of contributory plans has been shown in numerous union negotiations, where the union has indicated the willingness of its members to contribute to the pension plan.<sup>82</sup> In short, a plan, which is partially financed by employee contributions, has numerous advantages.

The contributions of the employees are normally applied to the cost of future service credits; whereas past service credits are paid for exclusively by the employer. Also, where life insurance is optional, its cost is usually provided for out of the employee's contribution.

Although the present tendency is to establish a contributory plan, the percent of cost which is contributed by the employees has been generally reduced. The previously mentioned survey by Charles D. Spencer and Associates reported that the larger number of small company plans call for the employee to pay 1/3 of the total cost. However, methods using 25% and 20% appeared almost as frequently. Several plans, reported on, based the contributions on a small percentage of pay--for example, 3.5%.<sup>83</sup>

The general consensus of opinion on contributory plans has been well expressed by a small company in describing their own plan.

The retirement features of the plan are based on philosophy

---

<sup>82</sup>Ibid., 43, p. 21.

<sup>83</sup>Ibid., 33, p. 16.





44

that the employee should share in the responsibility for his retirement and that a pension should be an earned right, not a charity payment. The Company has acted on the premise that the burden is not solely on management's shoulders, however, and that, like Social Security, the cost should be shared as a means of building and maintaining the employee's sense of self respect. The success of the plan is thus not dependent upon the employer's power to give but upon the cooperation of all the forces within the organization.<sup>84</sup>

When discussing the problem of pension finance, the advantages of pool, area or industry type plans should not be forgotten. The Committee For Economic Development in their report on special problems of small business has made a similar recommendation.

That the proprietors of small business, through their trade organizations or other appropriate channels, explore the possibilities of arranging employee security programs for groups of businesses, in which case costs comparable to those enjoyed by larger enterprises might be achieved.<sup>85</sup>

A pool system for small banks was originated in 1948 by the Detroit Trust Company in which a deferred-profit sharing type of plan was employed. Each member bank was allowed to specify what percent of annual profits were to be assigned to the pool fund and how its employees' pension credits were to be figured. By use of the pool system, the Trust Company annual fees were reduced, since a larger fund benefits by lower service charges.<sup>86</sup> Similar plans have since been estab-

---

<sup>84</sup>"The Guaranteed Annual Wage: A Small Company's Answer," Personnel, January, 1954, p. 299.

<sup>85</sup>Ibid., 12, p. 6.

<sup>86</sup>Ibid., 78, p. 42.



lished.

Further experimentation has been conducted by the United Auto Workers Union (CIO). In 1950, an industry type plan was contracted with the Automotive Tool and Die Manufacturers Association in Detroit. This plan covered 6,000 employees of 70 companies, and provided \$100 a month pension from a fund provided by the ATDMA.<sup>87</sup>

Another pilot plan of the UAW was established in the Toledo area, in November of 1950. This plan differed from the Detroit plan in that it covered small businesses in various fields of enterprise. The plan gave coverage to 1250 employees of 19 different companies. Contributions of 7 cents per hour per employee were made to the area fund by each employer to provide the monthly retirement income of \$117.50 to covered employees.<sup>38</sup>

The most recent boost to this type of group plan is that which has been prepared by the Bakery and Confectionary Workers International Union (AFL). The plan is presently being set up as a single fund to cover 160,000 union members throughout the country. It will be the first group plan to cover an industry.<sup>89</sup>

---

<sup>87</sup>"Area Pensions In Detroit," Business Week, June 3, 1950, p. 86.

<sup>88</sup>"Area Pensions In Toledo," Business Week, December 15, 1951, p. 34.

<sup>89</sup>"One Big Pension," Business Week, April 3, 1954.



Such pool, area or industrial group plans are credited with many advantages. The cost of administration is claimed to be much less for one large plan than for many small ones. Vesting privileges are 100% within the member companies. And, as a rule, after a prescribed period (20 years), the covered employee retains full vested rights to his pension credits. Furthermore, such a plan provides for uniform contributions from the employers, and it also provides uniform retirement benefits to the employees. However, the main objectives of group plans are to provide a pension program for employers of small concerns who would otherwise find it difficult and possibly expensive to establish their own program; and in a similar vane, to provide a maximum reduction in pension costs as provided by large scale operations.<sup>90</sup>

Advantages are usually accompanied by disadvantages, and the group system is no exception. Some employers feel that this type of plan gives the union too much control over hiring. The pension-fund status of the man to be hired would prevail. Employers are also of the opinion that companies with a larger number of younger employees would have to pay more than their share. They further fear no end to the increase in labor demands concerning employer contributions.<sup>91</sup>

---

<sup>90</sup>Segal, Martin E., "Recent Trends in Management-Labor Welfare Funds," The Journal of Commerce, New York, June 19, 1953, vol. 236, p. 5.

<sup>91</sup>"Area Pension Plan Perks Up," Business Week, November 4, 1950, p. 120.



Regardless of the disadvantages of such a group pension system, the idea can and no doubt will spread rapidly to industries in which it would be practical. In any case, if the system is applied reasonably, it would be a boom to small business pension problems.





## PENSION PLANS APPROPRIATE TO SMALL BUSINESS

In deciding on a medium to be used in funding a small firm's pension program, the employer should keep in mind that the future of his business is flexible. Financial reverses may cause the business to terminate. The possibility of consolidation with a larger firm is ever present, and in the case of single proprietorships, death may cause the ownership of the concern to change hands. With these prospects in mind it seems apparent that only insured, or at least partially insured plans, are appropriate for use by small business. One exception to the rule is the case of a small business included in a pool type plan, for which, any funding medium used by large corporations could be suggested. In this discussion only insured or partially insured plans will be presented.

### Individual Retirement Income Plan

This plan is appropriate for small firms regardless of their size. As a rule, the plan consists of contributing level payments to a pension trust with an appointed trustee. The trustee in turn invests these payments in individual retirement annuity policies as directed by the terms of the plan and trust agreement. The policies are underwritten by an insurance company for the individual employee, and are kept in trust until such time as the employee retires or ter-



minates his service. The level payments are based on the age of each employee, their respective retirement dates, and the designated amount of retirement benefit to be received. The retirement annuity policies are usually combined with some form of life insurance benefit. The usual policy provides for \$1,000 of insurance for each \$10 of monthly retirement income. For those employees physically disqualified for such life insurance, death benefits may be provided by purchasing additional annuity policies which provide the same amount of benefit at death in returned premiums or cash value.<sup>92</sup>

The individual retirement income plan has advantages for the small business. The major advantage being that after the employee's retirement benefit has been determined, and the annual cost has been calculated, the responsibility for guaranteeing these benefits rests entirely with the insurance company. In this type plan the costs will not increase unless additional benefits are to be provided.<sup>93</sup> Consequently, the employer is assured of a maximum commitment for each year of the plan.

The main disadvantages of this type of plan are its lack of flexibility and its cost. The cost to the employer in an

---

<sup>92</sup>Ibid., 27, p. 14.

<sup>93</sup>Pension Plans and Profit-Sharing Plans; a booklet prepared by John Hancock Mutual Life Insurance Company, Boston, Mass.



annual fixed commitment during poor profit years could be disastrous. The premiums must be paid regardless of the firm's financial condition. Policies do have loan value, and hence, may be borrowed on by the employer. However, this is detrimental to employer-employee relations, and may be declared a violation of qualification by the Bureau of Internal Revenue. The cost of administration of this type of plan is higher than any other funding method.<sup>94</sup> The death benefit expense is unnecessarily high, and the attributed cost must be included on the employee's tax returns. Individual policy plans, inherently provide liberal vesting privileges. The policies are given to the employee upon severance with the company, for his continuance. This defeats the purpose of a retirement plan, in that cash values are distributed prior to retirement.

The disadvantages of an Individual Retirement Income Plan far outweigh the advantages. However, in many extremely small businesses, this plan is a necessity to provide the desired objectives because of the unavailability of other options.

#### Group Permanent Retirement Income Plan

This use of group permanent retirement income policies has been suggested to alleviate one of the disadvantages of

---

<sup>94</sup>Ibid., 69, p. 36.



individual retirement income plans. However, the number of employees necessary to meet insurance company group underwriting requirements must be available. As a rule, group underwriting requires 50 employees or more, but in some cases may be offered to companies with only 25 or less participating employees. In the use of this policy, life insurance coverage is made on a group basis which includes those employees unqualified for individual life insurance coverage. Thus, the need is removed for additional annuity policies for these employees.<sup>95</sup>

This type plan is an improvement upon the individual retirement income plan. Yet, the same disadvantages prevail with the exception of reduced cost attributed to death benefit.

#### Deferred Group Annuity Plan

The deferred group annuity plan may be utilized by small firms having a minimum of 25 eligible employees. However, the inclusion of such small firms may be restricted by the laws of the individual states. This plan consists of purchasing, on an annual single premium basis, a deferred annuity policy for each eligible employee. The premiums are paid to the insurance company under which the plan has been contracted, and each covered employee receives a certificate, written by the insurance company, which specifies his benefit.

---

<sup>95</sup>Ibid., 27, p. 14.





32

The retirement benefit obligation is shifted to the insurance company, divesting the employer of further liability as long as the premiums are paid. The contracted premium rates and plan provisions are guaranteed during the initial 5 years of the plan. However, at the end of such time, the rates may be increased by the insurance company to absorb any losses which may have occurred due to the previous agreement. Yet, the insurance company has assured a maximum payment for the annuities preventing recovery of excessive accrued losses over a reasonable length of time. This fact is of great importance to the small business.<sup>96</sup>

A deferred group annuity plan has the advantage in that each unit of annuity purchased is fully paid, except for the possibility of increased future rates. The administration expenses of the plan are transferred to the insurance company, and any actuarial services needed are furnished by the company to the employer. A major advantage offered by any group plan is the reduction in premium costs as compared to that of the individual policy type. Most group annuity contracts provide that the employer may receive future dividends if the experience of the group so permits.

A disadvantage of a deferred group annuity is the lack of life insurance benefits. In devising the premium rate, mortality is discounted by the company. Hence, upon the

---

<sup>96</sup>Ibid., 71, p. 38.



death of the employee before or after retirement, the employer receives no refund. On death prior to retirement the employee's beneficiary receives only that amount as has been accrued by the annuities purchased.<sup>97</sup> Such death benefits prior to retirement should be supplemented by additional insurance. Upon the death of the employee after retirement, the beneficiary receives the remainder of the amount of the annuity. Another disadvantage of a deferred group annuity plan may occur because of the average age of the employees. A small firm may have a high average age of employees, which might necessitate higher annual premiums to faster liquidate the past service liability. After this has been done, past service requirements could be fully funded in order of age prior to retirement.<sup>98</sup> Usually, there are restrictions concerning employee contributions in this type of plan. Most insurance companies specify that a definite required percentage of the total eligible employees must contribute before the contributory provision may be included in the plan. This type also requires a fixed commitment on the part of the employer.

The cost of a deferred group annuity plan is estimated at approximately 10% of the participating payroll. However, it is considered as one of the cheaper means of providing an

---

<sup>97</sup>Ibid., 45, p. 22.

<sup>98</sup>Ibid., 47, p. 23.



insured plan, mainly due to the advance discounting of mortality.<sup>99</sup>

### Combination Plan

The Combination Plan or Blended Plan has been devised to incorporate as many advantages as possible in one plan. This plan has been created for firms whose employees number 25 or less. In this plan, an ordinary life insurance policy with conversion privileges is purchased for each employee at the age of entrance into the retirement program. At the designated retirement age, the life insurance policy is converted to an annuity contract by the addition of a lump sum payment, thus providing retirement income. The amount of additional payment required for conversion is specified by the insurance company at the issuance of the ordinary life policy. The supplementary fund, from which the conversion amounts are obtained, is provided by periodic payments made by the employer. This fund may be invested with the insurance company or formed as a trusteesd fund. However, the contributions to the supplementary fund must accumulate to predetermined amounts necessary to convert the ordinary life policies at retirement dates of the participating employees.<sup>100</sup>

The principal advantage of the Combination Plan is its

---

<sup>99</sup>Refer to Appendix B, Plan B, for sample cost figures.

<sup>100</sup>Ibid., 45, p. 22.



flexibility. If the conversion fund is invested with the insurance company issuing the ordinary life policies, the contributions to the fund probably will be required in level payments, thus eliminating the flexibility feature. However, if the fund is formed as a self administered trust, the flexibility of the plan is quite noticeable. During periods of low profit, when contributions to the plan would not be possible, life policy premiums may be paid out of the conversion fund. And during profitable years the fund could be built up to take care of any depression years. The process could be enacted without detriment to the actuarial soundness of the plan. It also would be recognized by the Federal Revenue Code.<sup>101</sup> A reduction in cost to the employer may be realized by investing the conversion fund at higher interest as provided by banking firms. Vesting privileges are usually specified so that the severed employee retains the life insurance policy, and the funded amount of the trust remains in the fund to reduce costs of the employer. Hence, turnover does not prove too great an added expense. Another advantage may be incorporated in the plan, if the life insurance contract is provided by group term life insurance, rather than by an individual ordinary life policy. If this is done, the covered employees would not be subject to income tax on their insurance benefit. Furthermore, a tax-advantage may be imparted to the beneficiary of a preretirement death, if the

---

<sup>101</sup>Ibid., 69, p. 36.





group term insurance aspect is incorporated.<sup>102</sup> The group insurance suggestions may not be available, depending upon the size of firm restrictions of the company.

One disadvantage to this type of plan is very noticeable. The plan does require excessive administration expense, as in the individual retirement income plan. Nevertheless, the plan is very applicable to small business.<sup>103</sup>

### Deferred Profit Sharing Plan

A Deferred Profit-Sharing Plan is felt by some people to be the answer to a small company's pension problems. In this plan, an employer contributes a certain percentage of his annual profits to a trust fund. This fund is allocated among the covered employees of the firm using a formula based on their wages, or years of service, or both. Upon reaching retirement age, the portion of the fund credited to the employee, is disbursed to him in a lump sum, or a paid up annuity is purchased for the employee to supply retirement income.<sup>104</sup>

This type of plan is applicable to small business for use of deferring payment of profit sharing funds in the form

---

<sup>102</sup>Ibid., 45, p. 22.

<sup>103</sup>Refer to Appendix B, Plan A, for sample cost figures.

<sup>104</sup>Galton, Lawrence, "Small Business Can Pay Pensions," Nation's Business, September, 1949, vol. 37, p. 29.



of pensions. However, the plan lacks many of the essentials of a good pension plan. One attribute is the advantage to the employer of not having a fixed annual commitment. If there is no profit, no contribution is required. The profit-sharing aspect does provide an incentive to greater employee efficiency. Hence, if the profits of the company are high over a long period of time, the employee may receive increased benefits. Nevertheless, it is possible for the reverse to occur.

In spite of these inherent advantages, it has many disadvantages. The inability of a deferred profit-sharing plan to provide for adequate past service benefits, is a pronounced disadvantage. Long service employees can not be provided with credits for past service prior to the establishment date of the plan. Hence, the retirement income will be inadequate for those employees who retire shortly after the plan is initiated. This may lead to problems concerning the retiring of superannuated personnel. The reduction of turnover, due to a profit-sharing plan may be obliterated. If graduated severance benefit formulas are not utilized, the employee's share of the fund may induce him to leave the firm in order to collect his cash benefit. Furthermore, as in any profit-sharing plan for pension purposes or otherwise, the definition of profits may lead to differences between the employer and his employees. Such differences may instigate "Fishing Expeditions", and information detrimental to the



company's welfare may be disclosed. In most deferred profit-sharing plans, severance and disability benefits are sizeable. With such provisions, the fund may be diminished to the point where inadequate funds are available for retirement income payments.<sup>105</sup>

In spite of the disadvantages of a deferred profit-sharing plan, many plans of this type are in use and have proved successful in small business.

---

<sup>105</sup>Ibid., 69, p. 36.



## SUMMARY

It has been explained that since the working population is getting older, and since their retirement is not adequately provided for, business must help to provide them with adequate security in the form of pensions. Approximately 99% of the business firms of the country are small business, as arbitrarily defined. Hence, the problem arises of how small business can provide this security.

The benefits provided by pension plans both to the employee and the employer of a small business have been emphasized.

The required provisions of the customary private pension plan have been discussed, keeping in mind their application to small business. An explanation of what these provisions mean and their advantages and disadvantages to small business, have been presented. In the discussion of each provision, recent examples have been stated, and recent trends have been noted, to clarify the explanation, and to enlighten the reader as to their usage.

General types of pension plans in present use by small firms have been examined, with the intent to clarify their desirability for small business.

Realizing the fact that the pension problems of two businesses are never alike, recommendations of a general nature will be stated.





## RECOMMENDATIONS

It is quite apparent from the study of pension plans for small business, that an attempt at making specific recommendations would be futile. The problems confronting one small business are never identical to those confronting another. Therefore, the individual company must decide upon a plan which fulfills the need of its employees, and yet, may be afforded by the company.

With the individuality of the pension problem in mind, the following general recommendations in designing of a plan are listed:

1. Eligibility restrictions should be so designed to include as many of the employees as possible.
2. A definite retirement date should be specified, allowing only necessary exceptions.
3. Severance benefits should be included on a limited, graduated basis.
4. Retirement benefits should be reasonable, and based only on the company's sincere ability to pay.
5. The plan should be actuarially sound and 100% funded.
6. Provision for employee contributions should be included in the plan.
7. The plan should be designed to permit "qualification".
8. A clause permitting periodic review and amendment of the plan should be included.



The major recommendations that can be made to the officers of a small business are: to study their pension problems thoroughly; make a survey of the possible solutions; and most important of all, secure competent advice. The aid of an attorney, banker, and an insurance agent or pension consultant will be invaluable in making a pension program a success.



## APPENDIX A

A GLOSSARY OF PRINCIPLE TERMS USED  
IN  
DISCUSSING PENSION AND OTHER DEFERRED COMPENSATION PLANS

Prepared from a Seminar of the New York State School of Industrial and Labor Relations, Cornell University, February 4, 1954, by The G. Gilson Terriberry Company, New York, New York.



GLOSSARY OF TERMS  
USUAL MEANING AS APPLIED TO PENSION  
AND OTHER DEFERRED COMPENSATION PLANS

1. Pension Plan (Retirement Plan) - A formalized program for determining lifetime incomes to be paid to employees after retirement.
2. Funded Plan - Probable cost of ultimate benefits actuarially determined and reserve established during employees' working years.
3. Partially Funded Plan - Actuarial reserves not fully established during employees working years.
4. Unfunded (Pay-As-You-Go) Plan - Meeting pension costs only as actual payments are made to pensioners - no advance funding of any kind.
5. Insured Plan - A plan funded through an Insurance Company.
  - (a) Group Annuity Plan - Annuities purchased for each individual as premiums are paid under group contract.
  - (b) Deposit Administration Plan - Contributions are paid under a group contract and are accumulated with guaranteed interest in an unallocated fund from which there is drawn at an individual's retirement the single premium sufficient to purchase an annuity.
  - (c) Immediate Participation Deposit Administration Plan - A deposit administration plan under which the fund, during its active term, is credited with full interest earnings of Insurance Company in lieu of any minimum guarantee and is reduced only by actual benefit payments and by actual allocated expenses in lieu of any purchase rate guarantee.
  - (d) Individual Contract Plan - Contributions are used to purchase for each individual a retirement income contract which may or may not include life insurance.
6. Self Administered (Trusteed) Plan - Plan funded through a trustee which may be a bank, an individual or group of individuals. Each year an actuarially determined amount is paid to trustee. Pension payments will be made from the fund as they fall due.





7. Welfare Fund Pension Plan - A trust covering a union and a group of employers which provides pension benefits for eligible employees. Plan may be self administered or insured. Required by law to have representatives of both employers and union on administrative board of plan.

\* \* \* \* \*

8. Profit Sharing Pension Plan - Percentage of annual profits distributed equitably by formula to account of each employee. Accumulated amounts may be used to purchase pensions. Thus, the amount of contributions determines the pension.
9. Thrift Plan - Employees make contributions which are supplemented in a fixed ratio by employer contributions which may be conditioned on available profits. Accumulated amounts may be used to purchase pensions. Usually has liberal vesting and cash options.

\* \* \* \* \*

10. Contributory Plan - Employee pays part of the cost.
11. Non-contributory Plan - Employer pays entire cost.
12. Unit Purchase Plan - Formula of pension benefit for each year of service is fixed and the cost varies.
13. Money Purchase Plan - Formula of contributions of each year of service is fixed and the amount of pension varies.
14. Final Pay Plan - Amount of pension based on earnings just prior to retirement or the average earnings for a short period of years just prior to retirement. May include proportionate reduction for shorter service.
15. Average Pay Plan - Amount of pension based on earnings during credited years of participation. Includes unit purchase plan where benefit is a percentage of each year's earnings.
16. Flat Benefit Plan - Plan provides uniform pension regardless of earnings. Usually specifies minimum service requirement with proportional reduction for shorter service. Benefits from Social Security often taken as an offset.
17. Equity Plan - A fixed portion of funds is invested in



equities and amounts of pension payments fluctuate with market value and income of total fund. During inflation, equity values tend to advance. Thus, the purpose of this method is to mitigate effects of inflation.

\* \* \* \* \*

13. Mortality Table - A table showing how many individuals, starting at a certain age, will be alive at each succeeding age. Used to give the probability of dying in, or surviving through, any period. Based on experience of individuals with something in common such as sex, type of protection, calendar years, etc.
19. Mortality Table Rated Back (Modified) - Using the mortality and life expectancy rates for a younger age than that shown in the basic table, thus producing a new table.  
  
EXAMPLE: 1st Modification - Age 63 uses age 62 rates, age 30 uses age 29 rates, etc.
20. Mortality Table with Projection - A mortality table with added variable of calendar year to recognize trend of improving mortality. Thus, mortality rate at any age varies with year such age is attained.
21. Life Expectancy - Average number of years of survival for a group of individuals after a given age.
22. Discount for Deaths - Decrease in pension costs resulting from assumed incidence of deaths both before and after retirement.
23. Actuary - A person skilled in the science of applying the probabilities of longevity to financial and other operations. Recognized professional standing is obtained through membership by examination in the Society of Actuaries, first as an Associate and later as a Fellow.
24. Actuarial Equivalent Pension - A rate of pension of equal value to another after giving consideration to altered incidence of mortality, interest and concurrent benefits caused by optional age or form of pension.
25. Actuarial Reserve - Present value of future pension payments which are contingent upon the death or survivorship of one or more individuals. It is



computed on assumptions that interest will be earned at a specified rate and mortality rates and other changes will follow a specified schedule.

- 26. Turnover Rates - Rates at which employees terminate service for reasons other than death - must know variations by age, service, and sex to be usable for pension cost computations.
- 27. Termination Credits - The funds released for re-allocation when an employee's service with the company ends and he does not retain a vested right to receive a pension. Does not apply to the extent costs had already been reduced by expected turnover.

\* \* \* \* \*

- 28. Future (Current) Service Benefits - Retirement credits accruing during the period of membership in the pension plan that is after its installation and prior to retirement.
- 29. Past (Prior) Service Benefits - Retirement credits for service prior to installation of plan.
- 30. Minimum Benefits - A basic pension which will be provided if standard formula should produce less. Benefits from Social Security often taken as an offset.
- 31. Supplemental Payments - Payments made out of pocket to retired employees in addition to benefits from pension plan.
- 32. Vesting - Attainment of a right to a deferred pension without the necessity of continuing employment.
- 33. Permanent and Total Disability Benefit - Incomes for employees who become physically unable to continue work but are not old enough to retire.

\* \* \* \* \*

- 34. Future (Current) Service Cost - Actuarially determined amount to fund future service benefits.
- 35. Step-Rate Funding - Funding each year the cost of that year's credited pension. Cost per individual normally increases each year.
- 36. Level Premium Funding - Funding part or all of the pension costs by equal payments during each employ-



ee's working years. It may be level in dollars or a level percentage of employee's earnings.

- (a) Attained Age - Future service costs based on ages at installation of plan or later entry into plan.
- (b) Entry Age - Current costs based on ages at employment or at plan eligibility, whether before or after plan installed.

- 37. Normal Cost - Future or current service cost under step-rate or under attained age funding; current cost under entry age funding.
- 38. Past Service Liability - Amount actuarially determined at start of plan to fund costs of past service benefits.
- 39. Initial Liability - A type of past service liability used under entry age level funding. It is the amount actuarially determined at start of plan to fund costs of original members which will not be funded by future normal costs.
- 40. Frozen Initial Liability - Past service liability or initial liability which is funded on amount originally computed; all effects of actual experience are reflected in normal costs. (this term has occasionally been used to refer to the practice of not funding any of the principal of past service liability or initial liability.)
- 41. Past Service (Initial Liability) Funding - Paying cost of past service or initial liability; may be paid all at once or amortized over period of years. Minimum aggregate payments at any time must be equal to interest on original liability. Maximum amount that may be used as tax deduction in any one year is 10% of original liability.

\* \* \* \* \*

- 42. Qualified Plan - A formal, funded, non-discriminatory pension plan approved by Bureau of Internal Revenue. (Has tax advantages to employer and employee.) Section under which it qualifies is 165(a) of the Code.
- 43. Non-Qualified Plan - Not approvable by Bureau of Internal Revenue. (Usually is disadvantageous tax-wise.)





44. Mimeograph 5717 - A release of the Bureau of Internal Revenue which describes:

(a) Cut-back of benefits to certain high paid employees if plan terminates within the first 10 years.

(b) Minimum rate of funding below which the Bureau of Internal Revenue will deem plan to be terminated.

45. Deduction under 23(p) - Refers to section of Internal Revenue Code under which costs of qualified plans are claimed as business expense.

46. Social Security Integration - Testing of combined benefits provided by Social Security plus pension plan. Total shall not be proportionately greater for higher salaried employees than for lower paid employees.

\* \* \* \* \*

47. Normal Retirement Date - Date established by plan for regular retirement.

48. Early Retirement Date - Date employee may retire prior to normal retirement date.

49. Deferred Retirement Date - A retirement date after normal retirement date.

\* \* \* \* \*

50. Retirement Annuity - General term for annual income payable at retirement for life.

51. Life Annuity - An annual income starting at retirement and continuing for life with no further payment of any kind after death.

52. Modified Cash Refund Annuity - An annual income starting at retirement and continuing for life with guarantee that if employee dies before receiving in pension an amount equal to his own contributions and interest, any balance will be paid to his beneficiary.

53. Cash Refund Annuity - An annual income starting at retirement and continuing for life with guarantee that if employee dies before receiving in pension the total value of annuity at retirement date, any balance will be paid to his beneficiary.



54. Ten Years Certain and Life Annuity - An annual income starting at retirement and continuing for life with guarantee that if employee dies within 10 years after retirement, payments will continue to his beneficiary for balance of the 10 years. (May also be set up on other certain periods, such as 5, 15 or 20 years.)
55. Joint and Survivor Annuity - An annual income starting at retirement and continuing for life with guarantee that if employee dies while his contingent annuitant is living, payments on a predetermined rate will continue to the contingent annuitant for life.

\* \* \* \* \*



INDEX

Actuarial Equivalent Pension	24
Actuarial Reserve	25
Actuary	23
Attained Age Level Funding	36 (a)
Average Pay Plan	15
Cash Refund Annuity	53
Contributory Plan	10
Current Service Benefits	23
Current Service Cost	34
Deduction under 23(p)	45
Deferred Retirement Date	49
Deposit Administration Plan	5 (b)
Disability	33
Discount for Deaths	22
Early Retirement Date	42
Entry Age Level Funding	36 (b)
Equity Plan	17
Final Pay Plan	14
Flat Benefit Plan	16
Frozen Initial Liability	40
Funded Plan	2
Future Service Benefits	23
Future Service Cost	34
Group Annuity Plan	5 (a)
Immediate Participation Deposit	
Administration Plan	5 (c)
Individual Contract Plan	5 (d)
Initial Liability	39
Initial Liability Funding	41
Insured Plan	5
Joint and Survivor Annuity	55
Level Premium Funding	36
Life Annuity	51
Life Expectancy	21
Mimeograph 5717	44
Minimum Benefits	30
Modified Cash Refund Annuity	52
Modified Mortality Table	19
Money Purchase Plan	13



INDEX (Cont'd)

Mortality Table	18
Mortality Table Rated Back	19
Mortality Table with Projection	20
Non-Contributory Plan	11
Non-Qualified Plan	43
Normal Cost	37
Normal Retirement Date	47
Partially Funded Plan	3
Past Service Benefits	29
Past Service Funding	41
Past Service Liability	38
Pay As You Go Plan	4
Pension Plan	1
Permanent and Total Disability	33
Prior Service Benefits	29
Profit Sharing Pension Plan	8
Qualified Plan	42
Retirement Annuity	50
Retirement Plan	1
Self-Administered Plan	6
Social Security Integration	46
Step-Rate Funding	35
Supplemental Payments	31
Ten Years Certain and Life Annuity	54
Termination Credits	27
Thrift Plan	9
Total and Permanent Disability	33
Trusteed Plan	6
Turnover Rates	26
Unfunded Plan	4
Unit Purchase Plan	12
Vesting	32
Welfare Fund Pension Plan	7





## APPENDIX B

SAMPLES OF PENSION PLAN COST FIGURES  
PLUS  
CONTRACT PROVISIONS TO WHICH THESE COSTS ARE ATTRIBUTED

Plan A - Combination Type Plan

Plan B - Group Annuity Type Plan

The cost figures and their corresponding contract provisions have been taken from proposed plans designed for specific small businesses or from small business pension plans now in effect.



## COST FIGURES - PLAN A

## Non-Contributory Combination Type Plan

Total number of employees: 29

Number of immediately eligible employees: 11

Total annual salary of eligible employees----- \$ 113,635.32

First year premium cost

for Life Insurance Policies ----- \$ 2,083.19

First Year deposit to Supplementary Fund ----- \$ 2,420.14

Total first year employer payment ----- \$ 16,503.33



## ATTRIBUTING PROVISIONS IN PLAN A

### Method of Funding

A non-contributory type plan whose funding is accomplished through the use of life insurance policies and a supplementary fund. At an employee's retirement date, the life insurance policy will be converted to a paid up annuity. This will be combined with the necessary amount of money from the supplementary fund to provide the participant with his monthly pension.

### Eligibility

An employee must have 3 years of service with the company and be at least 25 years old and not more than 59 years and 6 months old.

### Normal Retirement Age

The normal retirement age for employees will be age 65, excepting that such employees who are between ages 55 years and 6 months and 59 years and 6 months will be retired 10 years after entering the Plan.

### Retirement Benefit

The minimum pension benefit to any participant at age 65 shall be \$50 per month. The maximum benefit shall be \$600 per month. The formula for arriving at the specific amount



of pension will be 1% of salary for each year of service to the Company with a maximum of 30%.

#### Severance Benefit

Each participant shall have, after 10 years of employment, a 20% interest on the cash value of his life insurance policy or policies and in his share of the supplementary fund. This interest will increase 20% each year after the 10th year of employment.

#### Death Benefit

A death benefit amounting to 100 times the monthly pension will be payable to the beneficiary of any employee who is a standard insurance risk. For those who are not eligible for standard insurance, a lesser amount of life insurance will be paid to their beneficiaries.

#### Supplementary Fund

The supplementary fund will be managed by the insurance company with a guarantee of 2% interest. All actuarial work is without cost.





## COST FIGURES - PLAN B

## Contributory Group Annuity Type Plan

Total number of employees: 20

Number of immediately eligible employees: 11

Total annual salary of eligible employees: \$63,420

## First year Current Service Cost

Employees contribute -----	\$ 1,832.16
Employer contributes -----	\$ 3,502.92
Single Premium for Past Service Liability -----	Not Given
Suggested annual payment towards Past Service ---	\$ 3,537.75
Total first year employer payment -----	\$ 7,040.67



## ATTRIBUTING PROVISIONS IN PLAN B

### Method of Funding

A contributory type plan whose benefits will be provided by a special level premium group annuity contract for groups involving 10 to 50 lives. Certificate will be issued to employees who join the Plan. Premium under the policy will be on the level premium basis and will remain unchanged for an individual until retirement unless there is a change in the amount of annuity to be provided.

### Eligibility

All permanent employees who are employed on a full time basis will be eligible for the Plan when they have completed 3 years of service and provided they have attained age 25, nearest birthday.

### Normal Retirement Age

The normal retirement age for all members will be the anniversary of the date of entry of the member on which the member is age 65, nearest birthday, except for those members age 56, nearest birthday, and older, on entry into the plan. These members will be retired on the tenth anniversary of their date of entry into the Plan or the anniversary nearest age 70, whichever is earlier.



## Retirement Benefit

### A. Due to Future Service

Under this Plan on retirement each member will receive an income for life, payable monthly, equal to  $\frac{3}{4}$  of 1% of his monthly salary on entry into the Plan not in excess of \$300, multiplied by the number of years in the Plan, plus 1-1/2% of the excess of such monthly salary over \$300 multiplied by the number of years in the Plan. If the member's salary is increased, an additional annuity will be provided equal to the increase in credit times the number of remaining years to retirement, providing the increase provides an annuity of at least \$5.00.

### B. Due to Past Service

Additional annuity credit due to past service will be allowed those members who join the Plan on its effective date. A monthly life income will be provided equal to 1/2 of 1% of the member's monthly salary on the effective date of the Plan not in excess of \$300, multiplied by the number of years of past service credited plus 1% of the excess of such monthly salary over \$300, multiplied by the member's years of past service credited.

## Employee Contributions

The members will contribute on the basis of 2-1/4% of their salary not in excess of \$300 per month and 4-1/2% of that portion of salary in excess of \$300 per month.



### Employer Contributions

The employer contributions will be the amount necessary to provide the remaining portion of the retirement income due to future service which is not paid for by the employee's contributions.

The employer will also contribute the amount necessary to purchase the entire income based on past service credit.

### Severance Benefit

If a member's employment is terminated after he has completed 10 years of service while covered under the Plan, and if he elects the paid up deferred annuity purchased by his own contributions, the amount of paid up deferred annuity will be increased by 50% of the annuity purchased by the Employer's contributions. For each year of service under the Plan in excess of 10 years, this vested annuity will be increased by 5% until after 20 years of service under the Plan there would be vested in the member 100% of the annuity purchased by the Employer's contributions.

If a member elects the cash refund of his contributions after having elected a paid up deferred annuity, the amount of paid up deferred annuity purchased by the Employer's contributions will be cancelled.

### Death Benefits to Employee's Beneficiary

Upon death before the normal retirement date there will be





a payment of an amount equal to the amount of total contributions theretofore made to the Plan by the member, plus 2% interest compounded annually.

In the event of the member dying before having received monthly income payments equal to the amount he contributed to the Plan, the excess of such contributions, plus 2% compound interest, over the total of such monthly income received, will be paid to his named beneficiary.

#### Death Benefits to Employer

Under the Plan all payments made by the employer are discounted for mortality with the result that the employer's contributions buy considerably more income than do the member's contributions. For this reason there will be no refund to the employer on the death of the member either before or after retirement.



## BIBLIOGRAPHY AND CITED REFERENCES

- Alvord, Morgan H., "Combination Pension and Profit-Sharing Plans," The Journal of Commerce, New York, June 12, 1952.
- Boyce, Carroll, How To Plan Pensions; New York, McGraw Hill Book Company, Inc., 1950.
- "One Big Pension," Business Week, April 3, 1954.
- "Pension Plans," Business Week, March 13, 1954.
- "It Costs Too Much," Business Week, May 9, 1953, p. 173.
- "Pension Funds, Fastest Grower of All," Business Week, March 21, 1953, p. 123.
- "Bigger Pensions in 1953," Business Week, March 14, 1953, p. 170.
- "Area Pensions In Toledo," Business Week, December 15, 1951, p. 34.
- "Too Young To Quit," Business Week, September 3, 1951, p. 164.
- "Area Pension Plan Perks Up," Business Week, November 4, 1950, p. 120.
- "Area Pensions In Detroit," Business Week, June 3, 1950, p. 36.
- "Pension Ruling," Business Week, April 30, 1949, p. 112.
- Calvert, N. Geoffrey, "Taking The Gamble Out of Pensions," Public Utilities Fortnightly, March 26, 1953, vol. 51, p. 415.
- Pension Planning Fundamentals; New York, Central Hanover Bank and Trust Company, 1948.
- Committee for Economic Development, Meeting the Special Problems of Small Business; New York, 1947.
- Eder, George J., "Taking The Gamble Out of Pensions-Perhaps," Public Utilities Fortnightly, July 2, 1953, vol. 52, p. 23.
- "Does Small Business Get a Fair Shake," Fortune, October, 1953, vol. 48, p. 163.
- "Cost of Pensions," Fortune, January, 1950, vol. 41, p. 16.



Galton, Lawrence, "Small Business Can Pay Pensions," Nation's Business, September, 1949, vol. 37, p. 29.

Gardner, Esmond F., "Trusteed Plans," Trends In Retirement Planning; New York, American Management Association, 1948.

Goldstein, Meyer M., "Pension and Profit Sharing Plans," The Financial Handbook, Third Edition, Revised; section 23, The Ronald Press Co., 1952.

Goldstein, Meyer M., "Current Problems On Pension Plans," The Journal of The American Society of Chartered Life Underwriters, June, 1952.

Goldstein, Meyer M., "New Trends in Pension and Profit-Sharing Plans," The Journal Of Commerce, New York, June 19, 1953, vol. 236, p. 3.

Goldstein, Meyer M., "Tax Pitfalls In Pension and Profit Sharing Plans In A Defense Economy," Reprint from Proceedings of New York University Institute on Federal Taxation, 1953.

Pension Plans and Profit-Sharing Plans; a booklet prepared by John Hancock Mutual Life Insurance Company, Boston, Mass.

Hazard, F. A., Jr., "Pension Planning," Life Association News, February, 1953, p. 28.

Meuche, Arthur J., Successful Pension Planning; New York, Prentice-Hall, Inc., 1949.

"Some Observations of Labor on Retirement Security," Monthly Labor Review, December, 1951, vol. 75, p. 699.

"Company Pension and Group-Insurance Plans: Cost Sharing," Monthly Labor Review, March, 1950, vol. 70, p. 298.

McDonald, Edwin C., "Some Current Trends in Retirement Plans," The Journal of Commerce, New York, June 19, 1953, vol. 236, p. 4.

An Aid In Drafting Pension Agreements; 1953, National Life Insurance Company Montpelier, Vermont.

"Treasury Ruling Seen Stimulating Pension Spread," National Underwriter (Life Ed.), April 10, 1953, vol. 57, p. 1.

"New Table Indicates Retirement Reserve May Be Inadequate," National Underwriter (Life Ed.), March 13, 1953, vol. 57, p. 1.



"What to Do About the Old Folks," Newsweek, March 20, 1950, vol. 35, p. 58.

"The Guaranteed Annual Wage: A Small Company's Answer," Personnel, January, 1954, p. 299.

Peterson, Ray, M., "Certainties and Uncertainties in Pension Planning," C.L.U. Journal, Winter 1953, p. 12.

Rice, Henry, "Stacking Up Money for Pensions," The Commercial and Financial Chronicle, June 19, 1953, vol. 177, p. 2630.

Segal, Martin E., "Recent Trends in Management-Labor Welfare Funds," The Journal of Commerce, New York, June 19, 1953, vol. 236, p. 5.

Charles D. Spencer and Associates, Inc., "Pension Plans With Less Than 100 Employees Participating," Employee Benefit Plan - Research Reports, sect. 101.

Spencer, Charles D., Lets Get Tough About Pensions, (A printed sales pamphlet).

A letter received from Mr. E. James Stephens, Manager of Pension Trust Sales, Massachusetts Mutual Life Insurance Company, Springfield, Mass.

Your Social Security; U. S. Government Printing Office, 1953.

Woodbury, Clarence, "What You Should Know About Pensions," American Magazine, June, 1951, vol. 151, p. 30.









25018

Thesis  
ML75

McClelland  
A study of pension plans  
for small business.

ans

SEP 29  
17 1967

DISPLAY  
33873

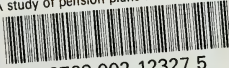
25018

Thesis  
ML75

McClelland  
A study of pension plans for  
small business.

thesM175

A study of pension plans for small busin



3 2768 002 12327 5  
DUDLEY KNOX LIBRARY